S/N: 10/065,594 June 21, 2004 Response to Office Action dated February 5, 2004 -12-

In the Specification			

Please amend the Abstract as follows:

The invention relates generally to <u>is</u> a universal connector which is useful with a variety of differently configured and shaped fittings as well as for applications when the fittings are identical. The connectors provided at either end of the tube may be formed by either compression molding or injection overmolding whereas the connections which are provided internal of either end connection, are positioned on the tube by injection overmolding.

Please replace paragraph [0010] with the following amended paragraph:

[0010] The invention may take physical form in certain parts and arrangement or parts, a preferred embodiment of which will be described in detail in the specification and illustrated in the accompanying drawings which form a part hereof, and wherein: FIG. 1 is a side elevational view of a universal connector with one entrapped connector fitting showing the internal diameter of the fittings and tube in ghost lines; FIG. 2 is a side elevational view of a universal connector with two entrapped connector fittings; FIG. 2A is an enlarged elevational view of an alternative embodiment of an end fitting of either FIGS. 1 or 2 which uses a ferrule as the sealing surface; FIG. 3 is an enlarged side elevational view of a first entrapped fitting of FIG. 2; FIG. 4 is an enlarged elevational view of a second entrapped fitting of FIG. 2; FIG. 5 is an enlarged elevational view showing one of the two end fittings of FIG. 2.

Please add the following <u>new</u> paragraphs after paragraph [0010]:

[0010.1] FIG. 1 is a side elevational view of a universal connector with one entrapped connector fitting showing the internal diameter of the fittings and tube in ghost lines;

- [0010.2] FIG. 2 is a side elevational view of a universal connector with four entrapped connector fittings;
- [0010.3] FIG. 2A is an enlarged elevational view of an alternative embodiment of an end fitting of either FIGS. 1 or 2 which uses a ferrule as the sealing surface;
- [0010.4] FIG. 3 is an enlarged side elevational view of a first entrapped fitting of FIG. 2;
- [0010.5] FIG. 4 is an enlarged elevational view of a second entrapped fitting of FIG. 2;
- [0010.6] FIG. 5 is an enlarged elevational view showing one of the two end fittings of FIG. 2;

Please replace paragraph [0011] with the following amended paragraph:

FIG. 6 is an enlarged cross-section view of one end of an alternate [0011] embodiment of a universal connector plastic tube showing one end connector overmolded thereto; FIG. 7-is an enlarged side view of the plastic tube of FIG. 6 including a nut shown in cross-section positioned on the tube; FIG. 8 is a top view of one half of a mold used in the process of overmolding a nose cone onto a plastic tube; FIG. 9 is a view similar to FIG. 8 showing the plastic tube inserted over the mandrel in the mold; FIG. 10 is a view similar to FIG. 9 with the nose cone shown overmolded onto the plastic tube; FIG. 11 is a side view shown in partial cross-section of an alternative embodiment of the connector showing an overmolded nut usable as an end of the connector; FIG. 12 is a view similar to FIG. 6 showing the nose cone in cross-section and the tube having an overbraid; FIG. 13 is a side view-shown in partial cross-section of an alternative embodiment of the connector showing an overmolded threaded connector usable an end of the connector; FIG. 14 is a top view of one half of a mold used in the process of overmolding a fitting onto a non-end segment of a plastic tube; FIG. 15 is an elevational view of an alternative embodiment of the connector showing a male segment with an integrally molded shelf with a separate nosecone sealing surface shown in cross-section; and FIG. 16 is an elevational view of an alternative embodiment of FIG. 15 showing a different separate nosecone sealing surface shown in cross-section.

Please add the following <u>new</u> paragraphs after paragraph [0011]:

- FIG. 7 is an enlarged side view of the plastic tube of FIG. 6 including a nut [0011.1] shown in cross-section positioned on the tube;
- FIG. 8 is a top view of one half of a mold used in the process of overmolding a [0011.2] nose cone onto a plastic tube;
- FIG. 9 is a view similar to FIG. 8 showing the plastic tube inserted over the [0011.3] mandrel in the mold;
- FIG. 10 is a view similar to FIG. 9 with the nose cone shown overmolded onto [0011.4] the plastic tube;
- FIG. 11 is a side view shown in partial cross-section of an alternative [0011.5] embodiment of the connector showing an overmolded nut usable as an end of the connector;
- [0011.6] FIG. 12 is a view similar to FIG. 6 showing the nose cone in cross-section and the tube having an overbraid;
- FIG. 13 is a side view shown in partial cross-section of an alternative [0011.7] embodiment of the connector showing an overmolded threaded connector usable as an end of the connector:
- FIG. 14 is a top view of one half of a mold used in the process of overmolding [0011.8] a fitting onto a non-end segment of a plastic tube;
- FIG. 15 is an elevational view of an alternative embodiment of the connector [0011.9] showing a male segment with an integrally molded shelf with a separate nosecone sealing surface shown in cross-section;
- FIG. 16 is an elevational view of an alternative embodiment of FIG. 15 [0011.10] showing a different separate nosecone sealing surface shown in cross-section;
- FIG. 17 is a side elevational view of a universal connector with two entrapped [0011.11]

connector fittings illustrated in a manner similar to that for FIG. 1;

- [0011.12] FIG. 18 is a side elevational view of a universal connector with three entrapped connector fittings illustrated in a manner similar to that for FIG. 1 illustrating various numbers of internal connectors and associated fittings;
- [0011.13] FIG. 19 is a side elevational view of a universal connector with multiple entrapped internal connectors and associated fittings;
- [0011.14] FIG. 20 is a side elevational view similar to FIG. 1 illustrating an externally threaded injection overmolded connector for one end fitting; and
- [0011.15] FIG. 21 is a side elevational view similar to FIG. 20 illustrating an internally threaded injection overmolded connector for one end fitting.

Please replace paragraph [0014] with the following amended paragraph:

While FIG. 1 illustrates an embodiment of the invention whereby three similarly [0014] geometried connectors are positioned on one length of tubing, there is no need to limit the invention to such, and in fact, larger numbers of entrapped connectors are envisioned within the scope of the invention, e.g., four (illustrated in FIG. 17) through n wherein n is an integral value which is appropriate for a predefined length of tubing, leaving a few inches between overmolded fittings (see FIGS. 18-19). It is generally preferred that for tubing lengths which are 8-10 feet in length, that n will generally be an integral value less than 10. It is generally considered that at least approximately 6 inches is necessary between connectors in order to effect the overmolding operation. The universal connector can also be smaller and larger, with ranges of 2-20 feet certainly within the scope of this invention. In fact, there is no theoretical upper limit to the length of the connector and therefore this dimension plays no role in this invention. Also, while FIG. 1 illustrates the use of three similarly geometrically shaped connectors, there is no need to limit the invention to such. FIG. 2 illustrates a universal connector 20 wherein the four entrapped connectors are of different shapes from that affixed to each end. It is obvious that there is no reason to limit the end connectors to the same geometry, and it is envisioned within the scope of this invention to have the same

or different geometried connectors at either end.

Please replace paragraph [0031] with the following amended paragraph:

While the above discussion has focused attention on the overmolding of a [0031] nose cone, there is no need to limit the invention to such. In fact, as shown in FIG. 11, an overmolded nut is shown, said nut having been formed by analogous processing to that described previously for nose cones. Therefore, it is within the scope of this invention to have a nut on one end of the universal connector (FIG. 21) and a connection at an opposed end with other connectors positioned between the two extremities. The overmolded nut 161 is shown affixed to tube 118, the nut containing a threaded bore 164 and a shoulder 162. The inner surfaces of the barrel portion 168 and radiused taper 166 are used to affix the nut in a leak-proof manner to the corresponding section of the outer surface of tubing element 118. This nut in one embodiment will be glass-filled polyethylene and will optionally incorporate an "O" ring to seal. In this configuration, it is obviously recognized that the tube would turn while screwing the connector into place.

Please replace paragraph [0032] with the following amended paragraph:

Yet another variation, an overmolded threaded connector, is shown in FIG. 13. [0032] which is similar to that shown and described previously with reference to FIG. 11, where an overmolded nut was shown. The threaded connector is formed by analogous processing to that described previously for nose cones, the mold design being different. The overmolded threaded connector 163 is shown affixed to tube 118, the connector being threaded 165 and having a shoulder 162 (FIG. 20). The inner surfaces of the barrel portion 168 and radiused taper 166 are used to affix the nut in a leak-proof manner to the corresponding section of the outer surface of tubing element 118. This threaded connector in one embodiment will be glass-filled polyethylene.